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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/073,999	02/14/2002	Ken Takeuchi	001701.00140	9741
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22907 7590 01/08/2003

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EXAMINER

HO, HOAI V

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,999

Applicant(s)

TAKEUCHI ET AL.

Examiner

Hoai V. Ho

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-67 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 47-67 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☒ Certified copies of the priority documents have been received in Application No. 09/667,610.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2818

1. This office acknowledges receipt of the following items from the Applicant:

Information Disclosure Statement (IDS) was considered.

Applicant claimed for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/667,610.

2. Claims 47-67 are presented for examination.

Specification

Numbering of claims

3. Two amended claims in the preliminary amendment filed on February 24, 2002 have the same number 66. The last amended claim 66 has been changed to 67.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 47-67 are rejected under 35 U.S.C. 102(a) as being anticipated by Hemink et al. U.S. Pat. No. 5,870,334.

Regarding to claims 47-50, 55-57 and 59-67, Figure 13 or Figure 20 (col. 16, lines 17-20 and 28-31) of Hemink is directed to a nonvolatile semiconductor memory comprising: a first memory cell (M1 of fig. 13 or M11 of fig. 20) section including a first memory cell; a first signal line (a common connection of Qn3 and Qn5 of fig. 13) connected to said first memory cell section; second signal line (a common connection of Qn6 and Qn7); third memory cell section including a third memory cell (another memory cell connects in parallel with M1, M12); a third

Art Unit: 2818

signal line (a common connection of transistors of another latch as Qn3 and Qn5) connected to said third memory cell section; fourth signal line (a common connection of transistors as Qn6 and Qn7 of another capacitor); and data circuit (103) connected to said first, second, third and fourth signal lines, said data circuit temporarily storing program / read data of at least one said first and third memory cells, wherein said first and third memory cells are programmed substantially simultaneously (controls by the same word line signal CG1, col. 14, lines 30, 31, 42 and 43), program data of said first memory cell is held by at least one of said first and second signal lines, and program data of said third memory cell is held by at least one of said third and fourth signal lines while a program voltage is supplied to said first and second memory (M2 or M21) cells (col. 10, line 24 to col. 11, line 20); a verify read operation to verify whether said first memory cell has been sufficiently programmed, is carried out by said data circuit, and program data of said third memory cell is held by said fourth signal line while conducting the verify read operation of said first memory cell; and said data circuit and said fourth signal line are electrically connected to each other, after the program data of said third memory cell held by said fourth signal line is transferred to said data circuit, a verify read operation to verify whether said third memory cell has been sufficiently programmed, is carried out using the program data of said third memory cell held by said data circuit, and while conducting a verify read operation of said third memory cell, the program data of said first memory cell is held by said second signal line (col. 11, lines 21-24).

Regarding to claims 51-54, Figure 13 or 20 of Hemink discloses wherein said first memory cell (M1 or M21) and said second memory cell (M2 of fig. 13 or M21 of fig. 20) are connected to different word lines (CG1 and CG2).


Art Unit: 2818


Regarding to claim 58, Figure 13 or 20 of Hemink discloses wherein said first (M1 of fig. 13 or M11 of fig. 20) and third memory (another memory cell connects in parallel with M1 or M12) cells are connected to a same word line (CG1).

7. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

8 A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).

9 Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (703) 308-4839. Other inquiries of this application should be called to (703) 308-0956.


H. Ho
January 6, 2003


Hoai V. Ho
Primary Examiner
Art Unit 2818